REMARKS

Claims 34, 41, 53 and 55 have been amended. Claims 45-52 and 57-59 have been canceled. No new matter has been included. Claims 34-44 and 53-56 remain pending in this application. Applicants reserve the right to pursue the original claims and other claims in this application and in other applications.

Claims 34-40 and 53-57 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,092,146 to Dell et al. ("Dell"). The rejection is respectfully traversed.

Claim 34 recites a signaling circuit for encoding presence detect data. The signaling circuit comprises "a first signal encoding portion for encoding first presence detect information, said first presence detect information being disposed in a hard-wired circuit of an integrated circuit semiconductor memory device." According to claim 34, said hard-wired circuit was "formed during manufacturing of said semiconductor memory device." The signaling circuit further comprises "a second signal encoding portion for encoding second presence detect information said second presence detect information being disposed in a programmable circuit of said semiconductor memory device." According to claim 34, said programmable circuit is "programmed subsequent to manufacturing of said semiconductor memory device."

Applicants respectfully submit that the Dell reference does not disclose presence detect data "disposed in a hard-wired circuit of an integrated circuit semiconductor memory device" and presence detect data "disposed in a programmable circuit of said semiconductor memory device."

Dell is directed to a memory adapter for configuring SIMMs in a computer system that normally employs DIMMs. Dell col. 1, l. 66 to col. 2, l. 2. The adapter

includes a programmable logic device for interrogating and configuring serial presence detect data. Dell col. 2, ll. 2-15. The programmable logic device configures the serial presence detect data by programming an EEPROM whose purpose is to store the serial presence detect data. Dell at col. 2, ll. 4-5 and 13-15. In fact, the primary purpose of the programmable logic device is to program the EEPROM with the serial presence detect data to allow a computer system to access the SIMMs. Dell col. 5, ll. 8-14. In Dell, the EEPROM may be programmed each time that a power-on-reset occurs. *See* Dell Figure 5.

The Dell EEPROM is programmed according to characteristic tables of the programmable logic device. Dell col. 2, ll. 11-13. Table 1 of Dell details the source for the EEPROM programming. According to Table 1, certain serial presence detect data bytes are "factory set." This phrase does not mean, however, that the information is hard-wired into the EEPROM. On the contrary, Dell's Figure 5 discloses that the EEPROM may be repeatedly programmed. The fact that certain bytes or information may be re-programmed without change does not teach that this information has been hard-wired into the EEPROM. By definition, an EEPROM is programmable, and information stored therein is not hard-wired. Therefore, Dell does not disclose the storage of presence detect data within a hard-wired circuit of an integrated circuit semiconductor memory device, let alone any device, as recited in claim 34.

In addition, as Applicants established in the parent application, Dell does not disclose, teach or suggest that its memory adapter is "an integrated circuit semiconductor memory device" as recited in claim 34. This is one more reason why claim 34 is allowable over Dell.

Moreover, Dell does not disclose the further step of storing or reading information *programmed* into the SIMM component. Dell col. 5, ll. 20-25. In other

words, Dell does not disclose a signaling circuit for encoding both first presence detect information "disposed in a hard-wired circuit of an integrated circuit semiconductor memory device" and second presence detect information "disposed in a programmable circuit of said semiconductor memory device," as recited in claim 34.

For at least the foregoing reasons, Applicants respectfully submit that claim 34 is allowable over Dell. Claims 35-40 depend from claim 34 and are allowable along with claim 34 for at least the reasons set forth above and on their own merits.

Claim 53 recites a method of operating a memory integrated circuit. The method includes the act of "receiving a first signal at a memory controller from said memory integrated circuit, said first signal encoding first presence detect information hardwired into said memory integrated circuit during manufacturing of said memory integrated circuit." The method further includes the act of "receiving a second signal at a memory controller from said memory integrated circuit, said second signal encoding second presence detect information programmed into said memory integrated circuit subsequent to manufacturing of said memory integrated circuit." Applicants respectfully submit that Dell fails to disclose the receipt of a signal encoding first presence detect information hardwired into a memory integrated circuit and a signal encoding second presence detect information programmed into the same memory integrated circuit.

As set forth above with respect to claim 34, Dell discloses the use of a memory adapter to program serial presence detect data into an EEPROM. Dell col. 5, ll. 20-22; col. 6, table 1. Dell does not, however, disclose the receipt of a signal encoding presence detect information that has been hard-wired directly into the memory integrated circuit, i.e., the EEPROM. Dell also does not disclose the receipt of a signal encoding information that has been programmed into the same memory integrated

circuit as one that also contains hard-wired signal encoding information. As such, claim 53 is allowable over Dell. Claims 54-56 depend from claim 53 and are allowable along with claim 53 for at least the reasons set forth above and on their own merits. Claim 57 has been canceled. Applicants respectfully request that the rejection be withdrawn and claims 34-40 and 53-57 be allowed.

Claims 41-44 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dell. The rejection is respectfully traversed.

A prima facie case of obviousness requires that the prior art reference teaches or suggests all of the claim limitations. MPEP § 2143. Applicants respectfully submit that Dell does not teach all of the claim limitations of claims 41-44.

As shown above, Dell does not disclose, teach, or suggest a signaling circuit for encoding presence detect data wherein some of the presence detect data is "disposed in a hard-wired circuit of an integrated semiconductor memory device" and some of the presence detect data is "disposed in a programmable circuit of said semiconductor memory device." Thus, claim 41 is allowable over Dell for at least the reasons set forth above. Claims 42-44 depend from claim 41 and are allowable along with claim 41 for at least the reasons given above and on their own merits. Applicants respectfully request that the rejection be withdrawn and claims 41-44 allowed.

Claims 41 and 55 have been amended solely to correct minor typographical errors.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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